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**DEPARTMENT OF NUCLEAR SAFETY AND SECURITY
DIVISION OF RADIATION, TRANSPORT AND WASTE SAFETY**



**EDUCATION AND TRAINING APPRAISAL
IN RADIATION PROTECTION AND THE SAFETY OF
RADIATION SOURCES**

PERU

13 – 17 June 2016

APPRAISAL TEAM - PARTICIPANTS

Appraisal Team

Julio Barcelo	Spain (Team Leader)
Andrea Luciani	IAEA (Team Coordinator)
Hugo Briso	Chile

List of Participants

IPEN

Ms Susana Petrick – President
Ms Susana Gonzales – Director, Technological Transfer
Mr Edgard Medina – Director, Centro Superior de Estudios Nucleares
Mr Alberto Montano – Director, International Technical Cooperation
Mr Mario Mallaupoma, Engineer, Radiological Security
Mr Mariano Vela, Health Physicist

OTAN-IPEN

Mr Marco Munive – Inspection’s Head,

Instituto Nacional de Enfermedades Neoplasicas

Ms Maria Velasquez - Health Physicist,
Mr Alberto Lachos, MD, Nuclear Medicine

Clinica Delgado

Ms Bertha Garcia - Health Physicist
Mr Rafael Doig, MD, Medical Director
Mr Gustavo Sarria, MD, Director of Radiotherapy

Universidad Nacional de Ingenieria, UNI

Prof Modesto Montoya – Professor, Master of Medical Physics

BACKGROUND AND SUMMARY

On the request of the Instituto Peruano de Energía Nuclear (IPEN) an Education and Training Appraisal (EduTA) was agreed to be conducted on 13-17 June 2016 under the Technical Cooperation national project RLA9075 ‘Strengthening National Infrastructure for End-Users to Comply with Regulations and Radiological Protection Requirements’.

The questionnaire was sent out to IPEN with the request to fill out the core modules (Modules A on the legal and regulatory framework for education and training, and Module B on the national strategy for education and training). The Module C, conceived to be filled out by organizations conducting the Postgraduate Educational Course in radiation protection and the safety of radiation sources (PGEC) under the auspices of the IAEA, was not considered as part of the appraisal mission.

A partially filled questionnaire, with the supporting documents, was sent back to the IAEA contact point before the conduction of the mission for a preliminary assessment. After consultation with the other members of the EduTA appraisal team, the IAEA contact point provided the Peruvian counterpart with guidance and suggestions on how to amend the provided information in order to properly address some of the questions. Before the mission, a new filled questionnaire, with additional supporting documents, was sent back to the IAEA contact point.

OBJECTIVES AND TERMS OF REFERENCE OF THE EduTA MISSION

The general objectives of the EduTA are:

- To carry out a detailed appraisal of the status of the provisions for education and training in radiation protection and the safety of radiation sources;
- To identify areas in education and training, where the provisions should be improved to meet (i) the IAEA safety standards, (ii) the national education and training needs;
- To provide the host Member State with recommendations and suggestions for improvement;
- To provide key staff in the host Member State with an opportunity to discuss the legislative framework and the national policy and strategy in the field, with the EduTA team members who have experience in the issues at stake;
- To promote the IAEA Standards and Guidelines relevant to the scope of the appraisal.

In this framework, the terms of reference of this appraisal mission were:

- To revise and review, together with the counterpart, the information provided in Module A and B of the EduTA questionnaire on the legal and regulatory framework for education and training in radiation protection and safety, and the national strategy for education and training, respectively.
- Providing an opportunity to continuously improve the provisions and overall infrastructures for education and training in radiation protection and safety.

CONDUCT OF THE MISSION

The EduTA mission was conducted according to the agreed Mission Programme. The opening session of the mission took place at the premises of Instituto Peruano de Energia Nuclear, IPEN (Peruvian Institute of Nuclear Energy) on the first day of the mission. The EduTA team was welcomed by Ms Susana Petrick, IPEN President, Ms Susana Gonzales, Director of Technological Transfer and Mr Edgard Medina, Director, Centro Superior de Estudios Nucleares, CSEN, IPEN (High Centre of Nuclear Training).

Representatives of IPEN, CSEN, Oficina Tecnica de la Autoridad Nacional, OTAN (Technical Office of the National Authority, IPEN Regulatory Body), Universidad Nacional de Ingenieria, UNI, Instituto Nacional de Enfermedades Neoplasticas and Clinica Delgado participated in the opening session.

The EduTA team leader presented the scope and objectives of the mission, the procedure for conducting the mission and the general structure and content of the Module A and B of the questionnaire.

The representatives of the Peruvian authorities provided several presentations on the national legal and regulatory framework, with particular emphasis on requirements for education and training in radiation protection, and on the activities and infrastructures for training in radiation protection.

Presentations provided were on:

- Overview on activities and facilities in Peru with use of ionizing radiations/radiation sources. National Legal and Regulatory Framework for E&T in Radiation Protection and Safety. Initiatives to establish a National Strategy for E&T, Mr Edgard Medina – CSEN
- Regulatory Body functions, Mr Marco Munive – OTAN
- Human Resources and infrastructures for E&T in Radiation Protection and Safety, Mr Mario Mallaupoma – IPEN
- The Master of Medical Physics in Peru, Mr Modesto Montoya - UNI

After the presentations, the information provided to the EduTA team by the Peruvian counterpart prior to the mission was discussed in detail, explanations on completing the questionnaire were given by the EduTA team and additional information was requested where necessary. Numerous documents were provided to the team.

In accordance with the mission programme, the EduTA team visited IPEN facilities as well as external organizations collaborating with CSEN, as follows:

- CSEN – IPEN Headquarters in order to dimension the facilities devoted to E&T, i.e. classrooms, laboratories and administrative offices.
- Instituto Nacional de Enfermedades Neoplasticas (National Institute for Neoplastic Diseases) Nuclear Medicine Service
- Clinica Delgado (Private Hospital) Radiotherapy Service

On the last day, an exit meeting was held with the Peruvian officials at the CSEN – IPEN premises. The EduTA team leader presented a brief outcome of the assessment. Conclusions, recommendations and suggestions were agreed with the counterpart.